

Curriculum Vitae - Elliot Anshelevich

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Education

- Cornell University, Ithaca, New York, 2000-2005
Ph.D. Computer Science, August 2005
- Rice University, Houston, Texas, 1996-2000
B.S. Computer Science, May 2000
Double major in Computer Science and Mathematics

Professional and Research Experience

- Rensselaer Polytechnic Institute, Troy, New York; 2012-
Associate Professor
- Rensselaer Polytechnic Institute, Troy, New York; 2006-2012
Assistant Professor
- Princeton University, Princeton, New Jersey; 2005-2006
Postdoctoral Researcher.

Current and Past Students

- Bugra Caskurlu, PhD received 2010, postdoc at West Virginia University, now faculty at TOBB Economics and Technology University (Ankara, Turkey).
- Ameya Hate, PhD received 2012, postdoc at National Bureau of Economic Research (NBER), now at Akamai.
- Onkar Bhardwaj, PhD received 2015, postdoc at IBM Watson, now at Akamai.
- John Postl, PhD received 2016, now at Bloomberg.
- Shreyas Sekar, PhD received 2017, starting postdoc at University of Washington in Fall 2017.
- Wennan Zhu, PhD student, joined in 2016.
- Ben Abramowitz, PhD student, joined in 2016.

- Yonatan Naamad, Undergraduate Researcher during Summer 2008.
- Matthew Gerrior, Undergraduate Researcher during Summer 2010.
- Michael Usher, Undergraduate Researcher during Summer 2011 and 2012.
- Stephen Gross, Undergraduate Researcher during Summer 2016.
- *Thesis Committee Member*: Gitakrishnan Ramadurai, Ting Xie, Hilmi Yildirim, Lily Briggs, Nithum Thain, Lingxun Hu, Dan Ibanez, Mingming Chen, Sujoy Sikdar, Hongtan Sun, Samta Shukla, Teng Liu.

Journal Publications

1. Elliot Anshelevich, Koushik Kar, and Shreyas Sekar. “Envy-Free Pricing in Large Markets: Approximating Revenue and Welfare.” *ACM Transactions on Economics and Computation*, to appear.
2. Elliot Anshelevich and John Postl. “Randomized Social Choice Functions Under Metric Preferences.” *Journal of Artificial Intelligence Research*, to appear.
3. Elliot Anshelevich, Onkar Bhardwaj, and Martin Hoefer. “Stable Matching with Network Externalities.” *Algorithmica*, to appear.
4. Elliot Anshelevich and John Postl. “Profit Sharing with Thresholds and Non-monotone Player Utilities.” In special issue of *Theory of Computing Systems* for best papers of SAGT 2014 and 2015, Volume 59, Issue 4 (2016), Pages 563–580.
5. Onkar Bhardwaj, Elliot Anshelevich, and Koushik Kar. “Coalitionally Stable Pricing Schemes for Inter-domain Forwarding.” *Computer Networks*, Volume 97, Issue C (March 2016), Pages 128–146.
6. Elliot Anshelevich, John Postl, and Tom Wexler. “Assignment Games with Conflicts: Robust Price of Anarchy and Convergence Results via Semi-Smoothness.” *Theory of Computing Systems*, Volume 59, Issue 3 (October 2016), Pages 440–475.
7. Elliot Anshelevich, Onkar Bhardwaj, and Michael Usher. “Friend of My Friend: Network Formation with Two-Hop Benefit.” *Theory of Computing Systems, Theory of Computing Systems*, Volume 57, Issue 3 (2015), Pages 711–752.
8. Elliot Anshelevich, Ameya Hate, and Malik Magdon-Ismail. “Seeding Influential Nodes in Non-Submodular Models of Information Diffusion.” *Journal of Autonomous Agents and Multi-Agent Systems*, Volume 29, Issue 1 (2015), Pages 131–159.
9. Umang Bhaskar, Lisa Fleischer, and Elliot Anshelevich. “A Stackelberg Strategy for Routing Flow over Time.” *Games and Economic Behavior, Games and Economic Behavior*, Volume 92, July 2015, Page 232–247.

10. Elliot Anshelevich, Bugra Caskurlu, Koushik Kar, and Hang Zhang. “Capacity Allocation Games for Network-Coded Multicast Streaming.” *IEEE/ACM Transactions on Networking*, Volume 22, Number 2 (April 2014), Pages 595–607.
11. Elliot Anshelevich, Ameya Hate, and Koushik Kar. “Strategic Pricing in Next-hop Routing with Elastic Demands.” *Theory of Computing Systems*, Volume 54, Issue 3 (2014), Pages 407–430.
12. Elliot Anshelevich, Bugra Caskurlu, and Ameya Hate. “Partition Equilibrium Always Exists in Resource Selection Games.” *Theory of Computing Systems*, Volume 53, Issue 1 (2013), Pages 73–85.
13. Elliot Anshelevich, Sanmay Das, and Yonatan Naamad. Anarchy, Stability, and Utopia: Creating Better Matchings. *Journal of Autonomous Agents and Multi-Agent Systems*, Volume 26, Issue 1 (January 2013), Pages 120–140.
14. Elliot Anshelevich, Bugra Caskurlu, and Ameya Hate. Strategic Multiway Cut and Multicut Games. *Theory of Computing Systems*, Volume 52, Issue 2 (2013), Pages 200–220.
15. Elliot Anshelevich and Bugra Caskurlu. Exact and Approximate Equilibria for Optimal Group Network Formation. *Theoretical Computer Science*, Volume 412, Issue 39 (September 2011), pages 5298-5314.
16. Elliot Anshelevich and Martin Hoefer. Contribution Games in Social Networks. *Algorithmica*, Volume 63, Issue 1-2 (June 2012), pp. 51–90.
17. Elliot Anshelevich and Adriana Karagiozova. Terminal Backup, 3D Matching, and Covering Cubic Graphs. *SIAM Journal on Computing*, Volume 40, Issue 3 (2011), pp. 678-708.
18. Elliot Anshelevich and Bugra Caskurlu. Price of Stability in Survivable Network Design. *Theory of Computing Systems*, Volume 49, Number 1 (July 2011), pp. 98-138.
19. Elliot Anshelevich, Bruce Shepherd, and Gordon Wilfong. Strategic Network Formation through Peering and Service Agreements. *Games and Economic Behavior*, Volume 73, Issue 1, September 2011, Pages 17-38.
20. Elliot Anshelevich, Deeparnab Chakrabarty, Ameya Hate and Chaitanya Swamy. Approximability of the Firefighter Problem: Computing Cuts over Time. *Algorithmica*, Volume 62, Issue 1 (2012), Pages 520-536.
21. E. Anshelevich, A. Dasgupta, J. Kleinberg, E. Tardos, T. Wexler, and T. Roughgarden. The Price of Stability for Network Design with Fair Cost Allocation. *SIAM Journal on Computing*, Volume 38, Issue 4 (November 2008), pp. 1602-1623.
22. E. Anshelevich, A. Dasgupta, E. Tardos, and T. Wexler. Near-Optimal Network Design with Selfish Agents. *Theory of Computing*, Volume 4 (2008), pp. 77-109.

23. E. Anshelevich and L. Zhang. Path Decomposition under a New Cost Measure with Applications to Optical Network Design. *ACM Transactions on Algorithms (TALG)*, Volume 4, Issue 1 (March 2008).
24. E. Anshelevich, D. Kempe, and J. Kleinberg. Stability of Load Balancing Algorithms in Dynamic Adversarial Systems. *SIAM Journal on Computing*, Volume 37, Issue 5 (January 2008), pp. 1656-1673.

Refereed Conference Publications

1. Elliot Anshelevich and Shreyas Sekar. “Price Doubling and Item Halving: Robust Revenue Guarantees for Item Pricing.” *Proc. of 18th ACM Conference on Economics and Computation (EC)*, 2017.
2. Stephen Gross, Elliot Anshelevich, and Lirong Xia. “Vote Until Two of You Agree: Mechanisms with Small Distortion and Sample Complexity.” *Proc. of 31st Conference on Artificial Intelligence (AAAI)*, 2017.
3. Elliot Anshelevich and Shreyas Sekar. “Truthful Mechanisms for Matching and Clustering in an Ordinal World.” *Proc of 12th Conference on Web and Internet Economics (WINE)*, 2016.
4. Elliot Anshelevich, Koushik Kar, and Shreyas Sekar. “Pricing to Maximize Revenue and Welfare Simultaneously in Large Markets.” *Proc of 12th Conference on Web and Internet Economics (WINE)*, 2016.
5. Elliot Anshelevich and John Postl. “Randomized Social Choice Functions Under Metric Preferences.” *Proc. of 25th International Joint Conference on Artificial Intelligence (IJCAI)*, 2016.
6. Elliot Anshelevich and Shreyas Sekar. “Blind, Greedy, and Random: Algorithms for Matching and Clustering using only Ordinal Information.” *Proc. of 30th Conference on Artificial Intelligence (AAAI)*, 2016.
7. Elliot Anshelevich and Shreyas Sekar. “Computing Stable Coalitions: Approximation Algorithms for Reward Sharing.” *Proc of 11th Conference on Web and Internet Economics (WINE)*, 2015.
8. Elliot Anshelevich and Shreyas Sekar. “Price Competition in Networked Markets: How do monopolies impact social welfare?” *Proc of 11th Conference on Web and Internet Economics (WINE)*, 2015.
9. Elliot Anshelevich, Onkar Bhardwaj, and Koushik Kar. “Strategic Network Formation through Intermediaries.” *Proc of 24th International Joint Conference on Artificial Intelligence (IJCAI)*, 2015.
10. Elliot Anshelevich, Koushik Kar, and Shreyas Sekar. “Envy-Free Pricing in Large Markets: Approximating Revenue and Welfare.” *Proc of 42nd International Colloquium on Automata, Languages, and Programming (ICALP)*, 2015.

11. Elliot Anshelevich, Onkar Bhardwaj, and John Postl. “Approximating Optimal Social Choice under Metric Preferences.” *Proc. of 29th Conference on Artificial Intelligence (AAAI)*, 2015.
12. Elliot Anshelevich and John Postl. “Profit Sharing with Thresholds and Non-monotone Player Utilities.” *Proc. of 7th International Symposium on Algorithmic Game Theory (SAGT)*, 2014. Invited to special issue of *Theory of Computing Systems* for best papers of SAGT 2014 and 2015.
13. Elliot Anshelevich and Shreyas Sekar. “Approximate Equilibrium and Incentivizing Social Coordination.” *Proc. of 28th Conference on Artificial Intelligence (AAAI)*, 2014.
14. Elliot Anshelevich, Onkar Bhardwaj, and Michael Usher. “Friend of My Friend: Network Formation with Two-Hop Benefit.” *Proc. of 6th International Symposium on Algorithmic Game Theory (SAGT)*, 2013. Invited to special issue of *Theory of Computing Systems* for best papers of SAGT 2013.
15. Elliot Anshelevich, Onkar Bhardwaj, and Martin Hoefer. “Friendship and Stable Matching.” *Proc. of 21st European Symposium on Algorithms (ESA)*, 2013.
16. Elliot Anshelevich, Meenal Chhabra, Sanmay Das, and Matthew Gerior. “On the Social Welfare of Mechanisms for Repeated Batch Matching.” *Proc. of 27th Conference on Artificial Intelligence (AAAI)*, 2013.
17. Elliot Anshelevich, Ameya Hate, and Malik Magdon-Ismael. “Seeding Influential Nodes in Non-Submodular Models of Information Diffusion.” (Extended abstract) *Proc. of 12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2013.
18. Elliot Anshelevich, Ameya Hate, Koushik Kar, and Michael Usher. “Stable and Efficient Pricing for Inter-domain Traffic Forwarding.” (Extended abstract) *Proc. of ACM SIGMETRICS 2012*.
19. Elliot Anshelevich, Meenal Chhabra, Sanmay Das, and Matthew Gerior. “On the Social Welfare of Mechanisms for Repeated Batch Matching.” (Extended abstract) *Proc. of 11th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2012.
20. Elliot Anshelevich, Ameya Hate, and Koushik Kar. Strategic Pricing in Next-hop Routing with Elastic Demands. *4th International Symposium on Algorithmic Game Theory (SAGT)*, 2011.
21. Elliot Anshelevich, Bugra Caskurlu, Koushik Kar, and Hang Zhang. Capacity Allocation Games for Network-Coded Multicast Streaming. *2nd International ICST Conference on Game Theory for Networks (GameNets 2011)*.

22. Umang Bhaskar, Lisa Fleischer, and Elliot Anshelevich. A Stackelberg Strategy for Routing Flow over Time. *ACM/SIAM Symposium on Discrete Algorithms (SODA)*, 2011.
23. Elliot Anshelevich, Bugra Caskurlu, and Ameya Hate. Strategic Multiway Cut and Multicut Games. *8th Workshop on Approximation and Online Algorithms (WAOA)*, 2010.
24. Elliot Anshelevich, Bugra Caskurlu, and Ameya Hate. Partition Equilibrium Always Exists in Resource Selection Games. *3rd International Symposium on Algorithmic Game Theory (SAGT)*, 2010. Invited to special issue of *Theory of Computing Systems*.
25. Elliot Anshelevich and Martin Hoefer. Contribution Games in Social Networks. *18th Annual European Symposium on Algorithms (ESA)*, 2010.
26. Elliot Anshelevich, Deeparnab Chakrabarty, Ameya Hate, and Chaitanya Swamy. Approximations for the FireFighter Problem: Cuts over Time and Submodularity. *20th International Symposium on Algorithms and Computation (ISAAC)*, 2009.
27. E. Anshelevich, B. Caskurlu. Price of Stability in Survivable Network Design. *2nd International Symposium on Algorithmic Game Theory (SAGT)*, 2009. Invited to special issue of *Theory of Computing Systems*.
28. E. Anshelevich, S. Das, Y. Naamad. Anarchy, Stability, and Utopia: Creating Better Matchings. *2nd International Symposium on Algorithmic Game Theory (SAGT)*, 2009.
29. E. Anshelevich, S. Ukkusuri. Equilibria in Dynamic Selfish Routing. *2nd International Symposium on Algorithmic Game Theory (SAGT)*, 2009.
30. E. Anshelevich, B. Caskurlu. Exact and Approximate Equilibria in Group Network Formation Games. *17th Annual European Symposium on Algorithms (ESA)*, 2009.
31. E. Anshelevich, G. Wilfong. Network Formation and Routing by Strategic Agents using Local Contracts. *Workshop on Internet and Network Economics (WINE)*, 2008.
32. D. Xu, E. Anshelevich, and M. Chiang. On Survivable Access Network Design: Complexity and Algorithms. *The 27th Conference on Computer Communications (INFOCOM)*, 2008.
33. E. Anshelevich, A. Karagiozova. Terminal Backup, 3D Matching, and Covering Cubic Graphs. *The 39th ACM Symposium on Theory of Computing (STOC)*, 2007.
34. E. Anshelevich, B. Shepherd, and G. Wilfong. Strategic Network Formation through Peering and Service Agreements. *The 47th Annual IEEE Symposium on Foundations of Computer Science (FOCS)*, 2006.
35. E. Anshelevich, A. Dasgupta, J. Kleinberg, E. Tardos, T. Wexler, and T. Roughgarden. The Price of Stability for Network Design with Fair Cost Allocation. *The 45th Annual IEEE Symposium on Foundations of Computer Science (FOCS)*, 2004.

36. E. Anshelevich and L. Zhang. Path Decomposition under a New Cost Measure with Applications to Optical Network Design. *12th Annual European Symposium on Algorithms (ESA)*, 2004.
37. E. Anshelevich, A. Dasgupta, E. Tardos, and T. Wexler. Near-Optimal Network Design with Selfish Agents. *35th ACM Symposium on Theory of Computing (STOC)*, 2003.
38. E. Anshelevich, D. Kempe, and J. Kleinberg. Stability of Load Balancing Algorithms in Dynamic Adversarial Systems. *34th ACM Symposium on Theory of Computing (STOC)*, 2002.
39. E. Anshelevich, S. Owens, F. Lamiroux, and L. Kavraki. Deformable Volumes in Path Planning Applications. *IEEE International Conference on Robotics and Automation* 2000, 2290-2295.

Other Publications

1. Elliot Anshelevich. “Ordinal Approximation in Matching and Social Choice.” *Newsletter of the ACM Special Interest Group on E-commerce (SIGecom Exchanges)*, Volume 15.1, July 2016.
2. Umang Bhaskar, Lisa Fleischer, and Elliot Anshelevich. “A Competitive Strategy for Routing Flow over Time.” *Newsletter of the ACM Special Interest Group on E-commerce (SIGecom Exchanges)*, Volume 10.2, June 2011.
3. Elliot Anshelevich and Sanmay Das. “Matching, Cardinal Utility, and Social Welfare.” *Newsletter of the ACM Special Interest Group on E-commerce (SIGecom Exchanges)*, Volume 9.1, June 2010.

Funding

- “Research Experience for Undergraduates (REU): Using Ordinal Information to Approximate Cardinal Objectives”, NSF-CCF, \$16,000, 2016 – 2018.
- “AF: Small: Using Ordinal Information to Approximate Cardinal Objectives in Social Choice, Matching, Group Formation, and Assignment Problems”, NSF-CCF, \$335,000, 2015 – 2018.
- “NeTS: Small: Inter-domain Traffic Engineering and Price Competition”, NSF-CNS, \$400,000, 2012–2017, together with Koushik Kar.
- “Research Experience for Undergraduates (REU) Supplement: Contribution Games in Social Networks”, NSF-CCF, \$8,000, 2012 – 2013.
- “ICES: Small: Contribution Games in Social Networks”, NSF-CCF, \$380,000, 2011 – 2016.
- “Research Experience for Undergraduates (REU) Supplement: Influencing and Improving Networks Formed by Strategic Agents”, NSF-CCF, \$8,000, 2011 – 2012.

- “NetSE: Small: Collaborative Research: Dynamic Flow Equilibria in Vehicular Traffic and Data Communication Networks”, NSF-CNS, \$500,000, 2010 – 2015, together with Koushik Kar and Satish Ukkusuri.
- “AF: Small: Influencing and Improving Networks Formed by Strategic Agents”, NSF-CCF, \$270,000, 2009 – 2014.
- “Postdoctoral Research Fellowship: Design and Management of Networks with Strategic Agents”, NSF-DMS, \$108,000, 2005 – 2008.

Service

- Program Committees:
 - Conference on Auctions, Market Mechanisms and Their Applications (AMMA 2009)
 - IEEE International Parallel & Distributed Processing Symposium (IPDPS 2010)
 - International Conference on Game Theory for Networks (GameNets 2011)
 - International Joint Conference on Artificial Intelligence (IJCAI 2011)
 - International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS 2012)
 - ACM Conference on Electronic Commerce (EC 2012)
 - AAAI Conference on Artificial Intelligence (AAAI 2013)
 - AAAI Conference on Artificial Intelligence (AAAI 2014)
 - ACM Conference on Economics and Computation (EC 2014)
 - International Symposium on Algorithmic Game Theory (SAGT 2015)
 - Conference on Web and Internet Economics (WINE 2015)
 - AAAI Conference on Artificial Intelligence (AAAI 2016)
 - International Joint Conference on Artificial Intelligence (IJCAI 2016)
 - ACM Conference on Economics and Computation (EC 2016)
 - AAAI Conference on Artificial Intelligence (AAAI 2017)
 - International Symposium on Algorithmic Game Theory (SAGT 2017)
 - Workshop on the Economics of Networks, Systems, and Computation (NetEcon 2017)
 - ACM Conference on Economics and Computation (EC 2017)
- Member of DIMACS executive committee, 2011-present
(DIMACS = Center for Discrete Mathematics and Theoretical Computer Science)
- Member, ACM SIGACT (Special Interest Group on Algorithms and Computation Theory), 2003-present
- Member, ACM SIGecom (Special Interest Group on Electronic Commerce), 2014-present

- Lifetime Member, ACM (Association for Computing Machinery), since 2013
- Referee for: NSF panelist on 7 occasions; US-Israel Binational Science Foundation; Swiss National Science Foundation; Science; SIAM Journal on Computing (SIComp); Transactions on Algorithms (TALG); Journal of Computer and System Sciences (JCSS); Theory of Computing Systems; Games and Economic Behavior (GEB); Theoretical Computer Science; Mathematics of Operations Research; Operations Research Letters; Networks; Algorithmica; Internet Mathematics; International Journal of Game Theory; Journal of Economic Theory (JET); Journal of Artificial Intelligence Research (JAIR); Journal of Combinatorial Optimization; Transactions on Economics and Computation (TEAC); Computer Networks; Transactions on Internet Technology (TOIT); IEEE Symposium on Foundations of Computer Science (FOCS); ACM-SIAM Symposium on Discrete Algorithms (SODA); Symposium on Theoretical Aspects of Computer Science (STACS); Integer Programming and Combinatorial Optimization (IPCO); Conference On Principles Of Distributed Systems (PODS); International Colloquium on Automata, Languages and Programming (ICALP); ACM Symposium on Parallelism in Algorithms and Architectures (SPAA); Conference on Computer Communications (INFOCOM); International Symposium on Algorithms and Computation (ISAAC); Workshop on Approximation and Online Algorithms (WAOA); ACM Symposium on Theory of Computing (STOC); European Symposium on Algorithms (ESA); Scandinavian Symposium and Workshops on Algorithm Theory (SWAT); International Symposium on Algorithmic Game Theory (SAGT); ACM Conference on Economics and Computation (EC); Conference on Web and Internet Economics (WINE).

Selected Invited Presentations (not including contributed presentations)

- “Blind, Greedy, and Random: Ordinal Approximation Algorithms for Matching and Clustering.”
 - McGill University, Discrete Mathematics and Optimization Seminar, Montreal, Canada, October 2016.
- “Approximating Optimal Social Choice under Metric Preferences.”
 - ACM-W Diversity Hackathon workshop, Rensselaer Polytechnic Institute, April 2016.
 - University of Illinois at Urbana-Champaign, UIUC CS Theory Seminar, Urbana, IL, March 2016.
 - Northeastern University, CCIS Colloquium and Theory Seminar, Boston, MA, December 2015.
 - University of Southern California, USC Computer Science Theory Lunch, Los Angeles, CA, November 2015.
 - Carnegie Mellon University, CMU Computer Science Theory Lunch, Pittsburgh, PA, September 2015.
 - Discrete Mathematics Day of the Northeast, Bard College, NY, Mar 2015.

- “Stable Matching, Friendship, and Altruism.”
 - New York University (NYU), New York, NY, NYU/Courant Institute of Mathematical Sciences Theory Seminar, Feb 2015.
 - University of Oxford, Oxford, UK, Department of Computer Science Seminar, Nov 2014.
 - University of Liverpool, Liverpool, UK, Computer Science Department Seminar, Nov 2014.
 - Centre for Discrete Mathematics and its Applications (DIMAP), University of Warwick, Warwick, UK, DIMAP Seminar, Nov 2014.
 - Google, New York, NY, Google Theory Seminar, Nov 2014.
 - Columbia University, New York, NY, Columbia Theory Seminar, Oct 2014.
 - Duke University, Durham, NC, CS-Econ Seminar Series, Sep 2014.
 - University of Waterloo, Waterloo, ON, Canada, Tutte Seminar Series, Mar 2014.
 - McMaster University, Hamilton, ON, Canada, Mar 2014.
- “Assignment Games with Conflicts: Price of Total Anarchy and Convergence Results via Semi-Smoothness.”
 - Max Planck Institut Informatik, Saarbrücken, Germany, Mar 2013.
- “Contribution Games in Social Networks.”
 - CS Department Theory Seminar, Cornell University, Ithaca, NY, Sep 2011.
 - UIUC Theory Seminar, University of Illinois at Urbana-Champaign, IL, Nov 2010.
 - Wisconsin Theory Seminar, University of Wisconsin - Madison, WI, Nov 2010.
 - University of Washington Theory Seminar, Seattle, WA, Nov 2010.
 - MSR Seminar, Microsoft Research at Redmond, WA, Nov 2010.
 - EconCS Seminar, UC Berkeley, Berkeley, CA, Sep 2010.
 - Research on Algorithms for the Internet (RAIN) Seminar, Stanford University, Sep 2010.
 - Yahoo! Research Theory Seminar, Yahoo! Silicon Valley, Sep 2010.
- “Approximations for the Firefighter Problem: Cuts over Time and Submodularity.”
 - IBM Watson Theory Lunch, Yorktown, NY, Apr 2010.
- “Exact and Approximate Equilibria for Optimal Group Network Formation.”
 - Toyota Technological Institute (TTI) Colloquium, Chicago, IL, Dec 2009.
- “Terminal Backup, 3D Matching and Covering Cubic Graphs.”
 - Computer Science Colloquium, Williams College, Williamstown, MA, May 2009.

- Carnegie Mellon University Theory Seminar, CMU, Pittsburgh, PA, February 2009.
- Tutte Seminar, Dept. of Combinatorics & Optimization, University of Waterloo, ON, Canada, November 2008.
- Brown University Theory Lunch, Providence, RI, Oct 2008.
- CSAIL Algorithms and Complexity Seminar, MIT, Cambridge, MA, Oct 2008.
- AT&T Shannon Research Laboratory, Florham Park, New Jersey, Sep 2008.
- Bell Labs Computing Sciences Research Seminar. Murray Hill, New Jersey, Sep 2008.
- Dartmouth Theory Seminar. Hanover, NH, May 2008.
- Columbia University Theory Seminar. New York, NY, November 2007.
- “The Price of Stability for Network Design.”
 - USC Computer Science Colloquium. Los Angeles, CA, October 2007.
 - Yale Discrete Mathematics and Theoretical Computer Science Seminar. New Haven, Connecticut, April 2006.
 - UPenn Computer Science Theory Seminar. Philadelphia, Pennsylvania, October 2005.
 - Princeton University Theory Lunch. Princeton, New Jersey, September 2005.
 - University of Minnesota Computer Science Colloquium. Twin Cities, Minnesota, April 2005.
 - Northwestern University Computer Science Lecture Series. Evanston, Illinois, March 2005.
 - DIMACS Theoretical Computer Science Seminar. New Brunswick, New Jersey, November 2004.
 - IBM Watson Mathematics Seminar. Yorktown Heights, New York, August 2004.
- “Strategic Network Formation through Peering and Service Agreements”
 - Northeastern University CCIS Colloquium. Boston, MA, November 2006.
 - Cornell University Computer Science Theory Seminar. Ithaca, NY, October 2006.
- “Near-Optimal Network Design with Selfish Agents.”
 - Bell Labs Computing Sciences Research Seminar. Murray Hill, New Jersey, June 2003.

Teaching Experience

Approximation Algorithms (graduate class, 6-20 students).
Algorithmic Game Theory (graduate class, 6-20 students).

Computer Algorithms (undergrad and graduate class, 50-100 students)

Introduction to Algorithms (undergraduate class, 140-200 students)

Undergraduate Research Supervisor: Yonatan Naamad, Summer 2008; Matthew Gerrior, Summer 2010; Michael Usher, Summer 2011-2012; Stephen Gross, Summer 2016.

Honors and Awards

- Fall 2016 SuperTeacher Award, School of Science, Rensselaer Polytechnic Institute.
- Spring 2016 SuperTeacher Award, School of Science, Rensselaer Polytechnic Institute.
- Outstanding Early Research Award, School of Science, Rensselaer Polytechnic Institute, 2011
- NSF Mathematical Sciences Postdoctoral Research Fellowship, 2005-2008